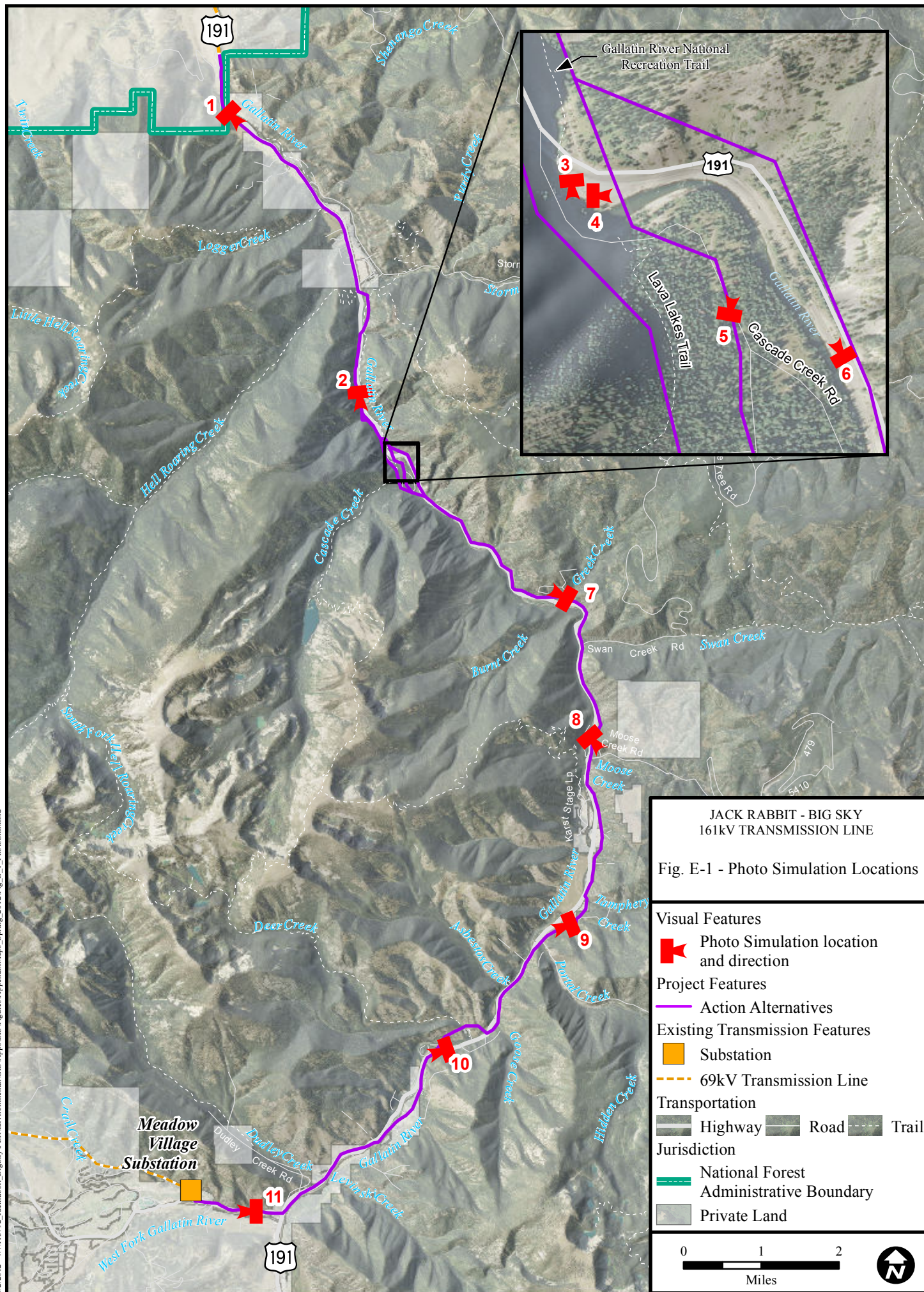
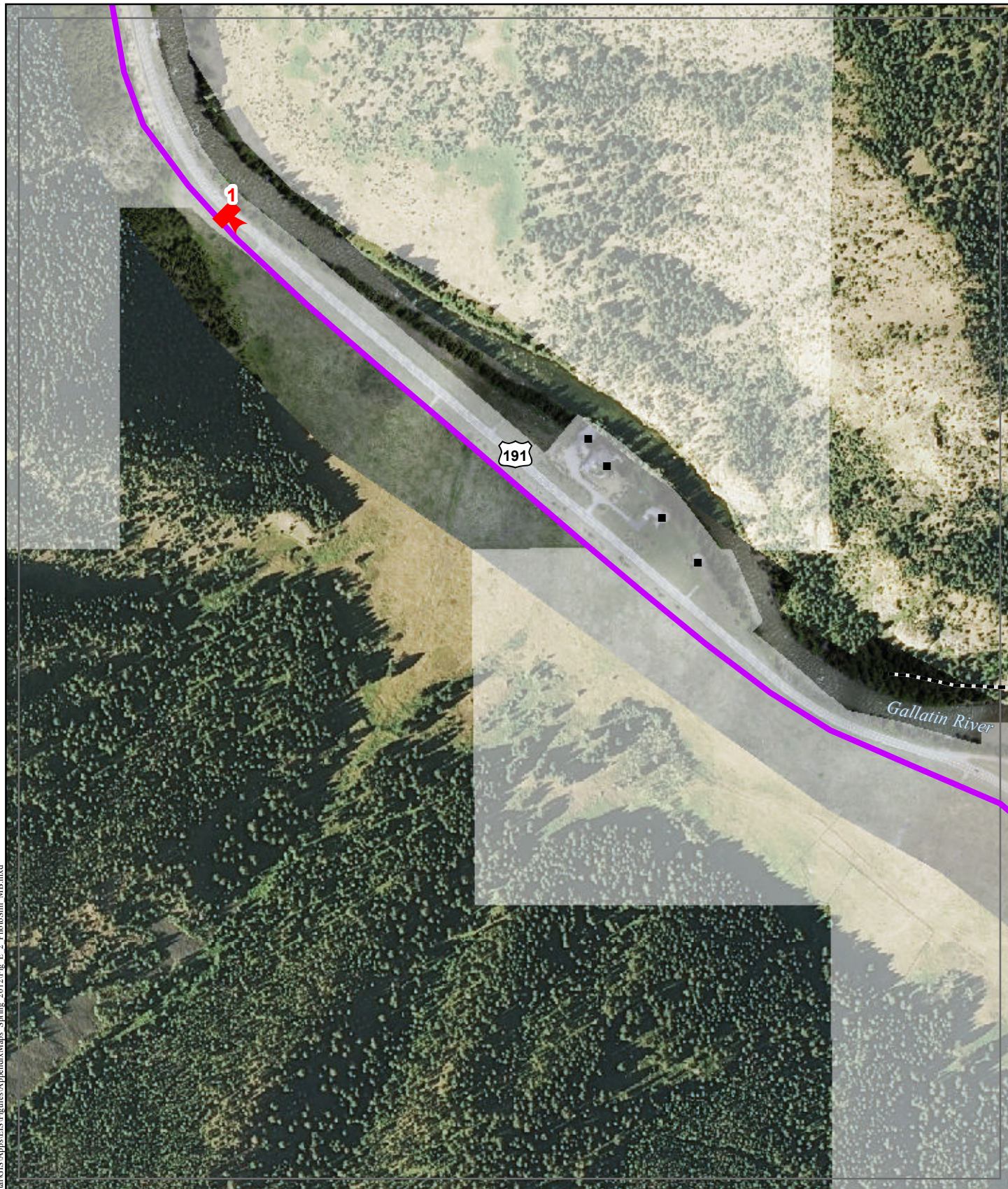











## **APPENDIX E      PHOTO SIMULATIONS**

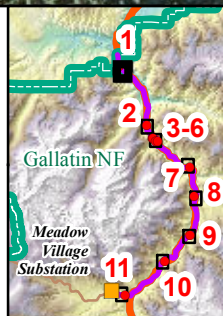
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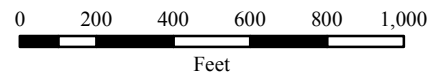
-  Photo Simulation location and direction
-  Recreational Residence
-  Residence on Private Land
-  Existing Transmission Line
-  Local Routing Option
-  Private Land
-  Campground
-  Trail
-  Trailhead



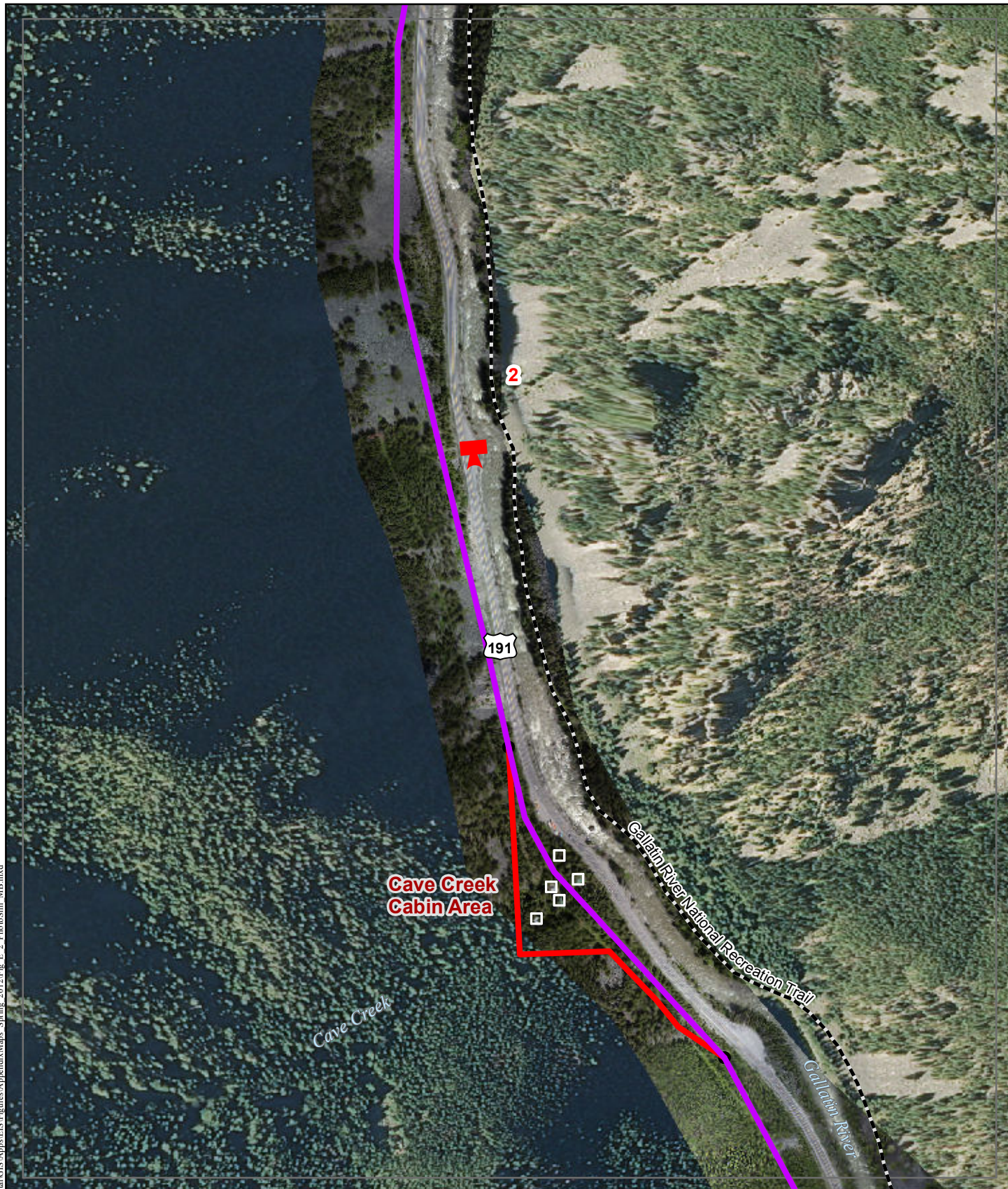
JACK RABBIT - BIG SKY 161kV TRANSMISSION LINE










Fig. E-2 - Photo Simulation Locations page 1

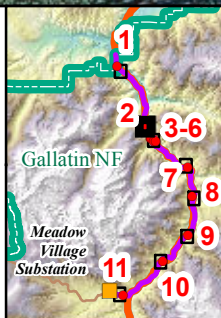
Sim 1 U.S. Highway 191 at the Gallatin Nation Forest Sign







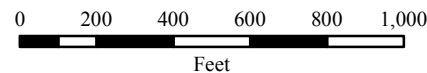
-  Photo Simulation location and direction
-  Recreational Residence
-  Residence on Private Land
-  Existing Transmission Line
-  Local Routing Option
-  Private Land
-  Campground
-  Trail
-  Trailhead



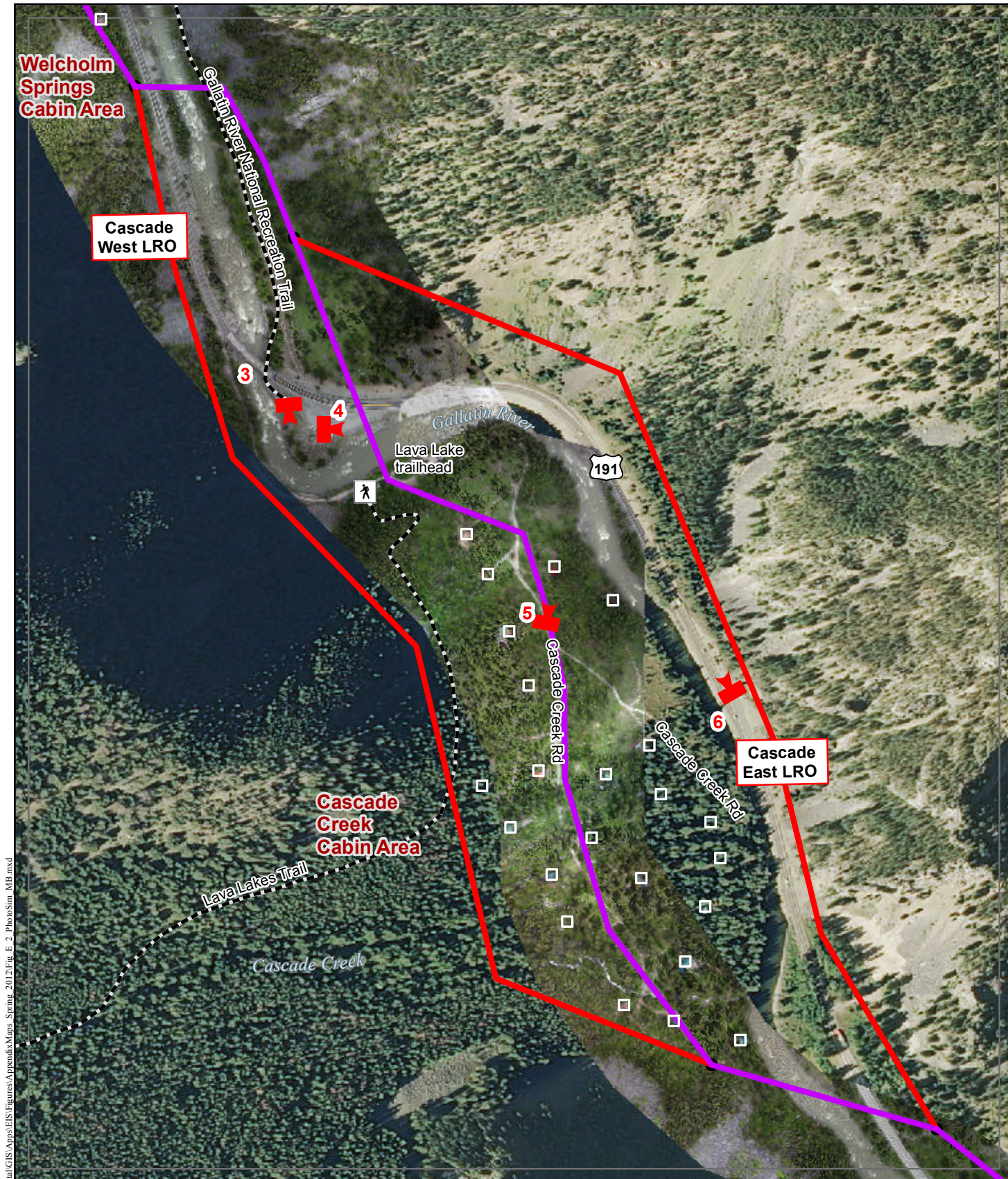
JACK RABBIT - BIG SKY 161kV TRANSMISSION LINE










Fig. E-2 - Photo Simulation Locations page 2

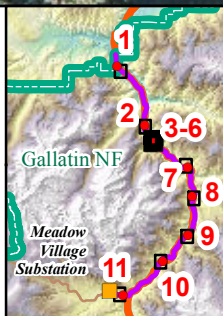
Sim 2 Highway 191 north of the Cave Creek Recreation Residence Tract







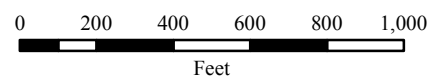
-  Photo Simulation location and direction
-  Recreational Residence
-  Residence on Private Land
-  Existing Transmission Line
-  Local Routing Option
-  Private Land
-  Campground
-  Trail
-  Trailhead



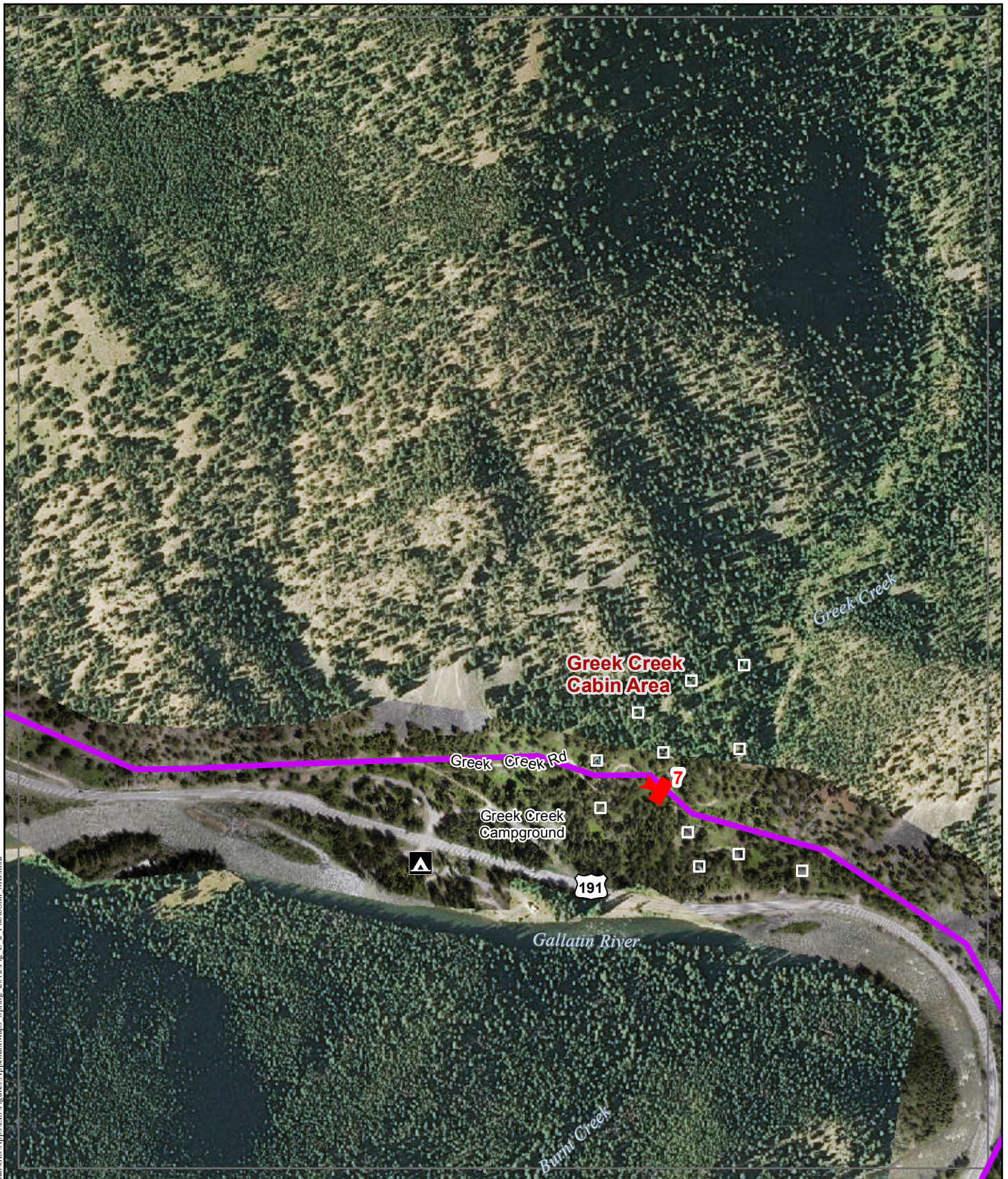
JACK RABBIT - BIG SKY 161kV TRANSMISSION LINE










Fig. E-2 - Photo Simulation Locations page 3

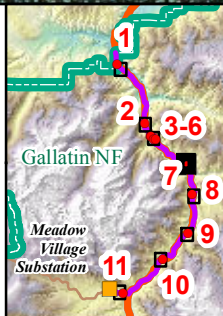
- Sim 3 Lava Lake Trailhead Access Road
- Sim 4 Gallatin River National Recreation Trail parking area, south of the 35mph bridge
- Sim 5 Cascade Creek Recreation Residence Tract
- Sim 6 U.S. Highway 191 east of the Cascade Creek Recreation Residences area







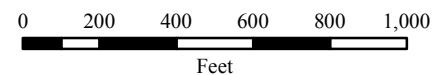
-  Photo Simulation location and direction
-  Recreational Residence
-  Residence on Private Land
-  Existing Transmission Line
-  Local Routing Option
-  Private Land
-  Campground
-  Trail
-  Trailhead



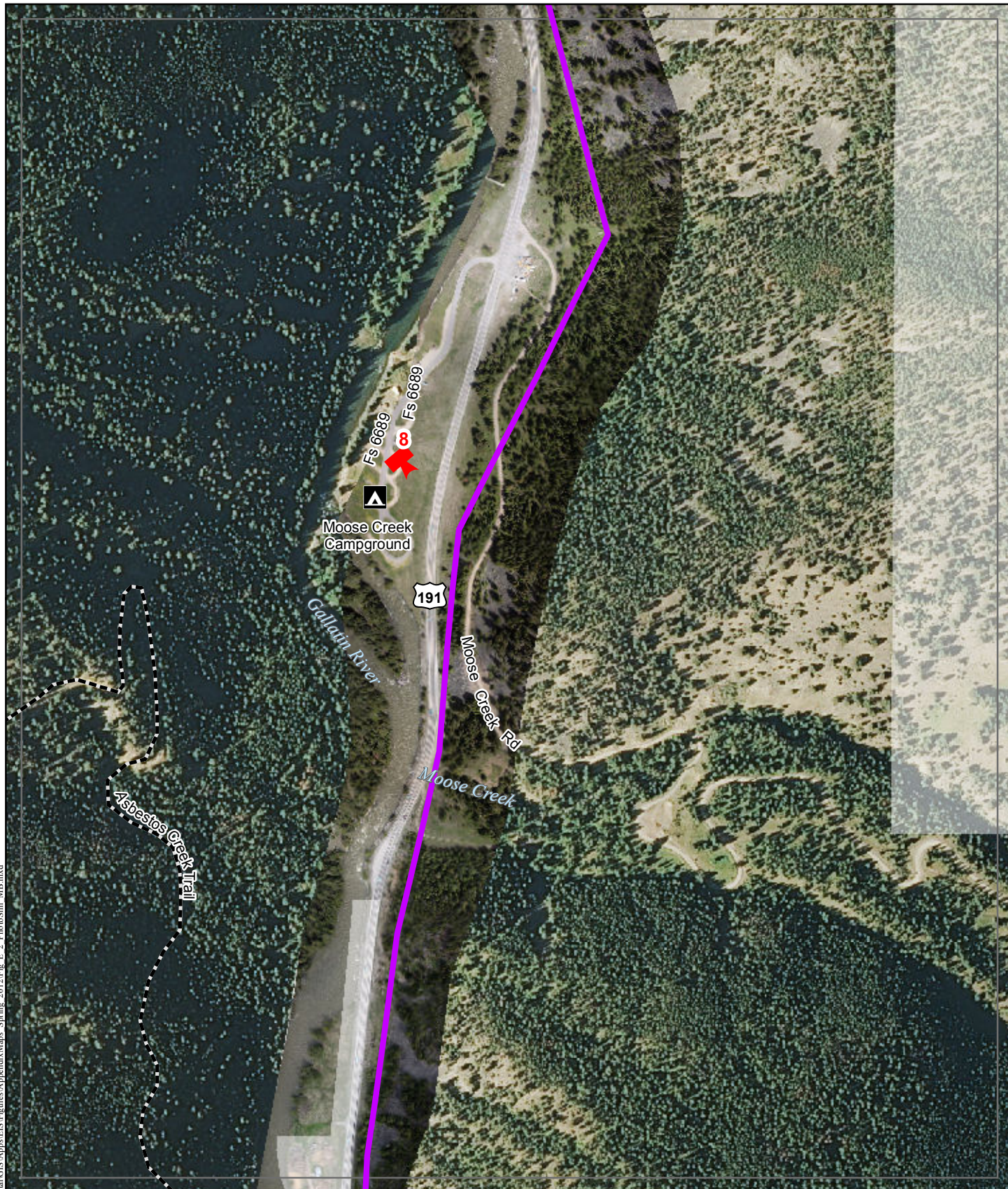
JACK RABBIT - BIG SKY 161kV TRANSMISSION LINE










Fig. E-2 - Photo Simulation Locations page 4

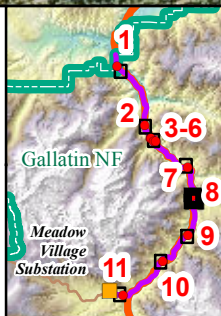
Sim 7 Greek Creek Recreation Residence Tract







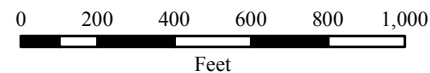
-  Photo Simulation location and direction
-  Recreational Residence
-  Residence on Private Land
-  Existing Transmission Line
-  Local Routing Option
-  Private Land
-  Campground
-  Trail
-  Trailhead



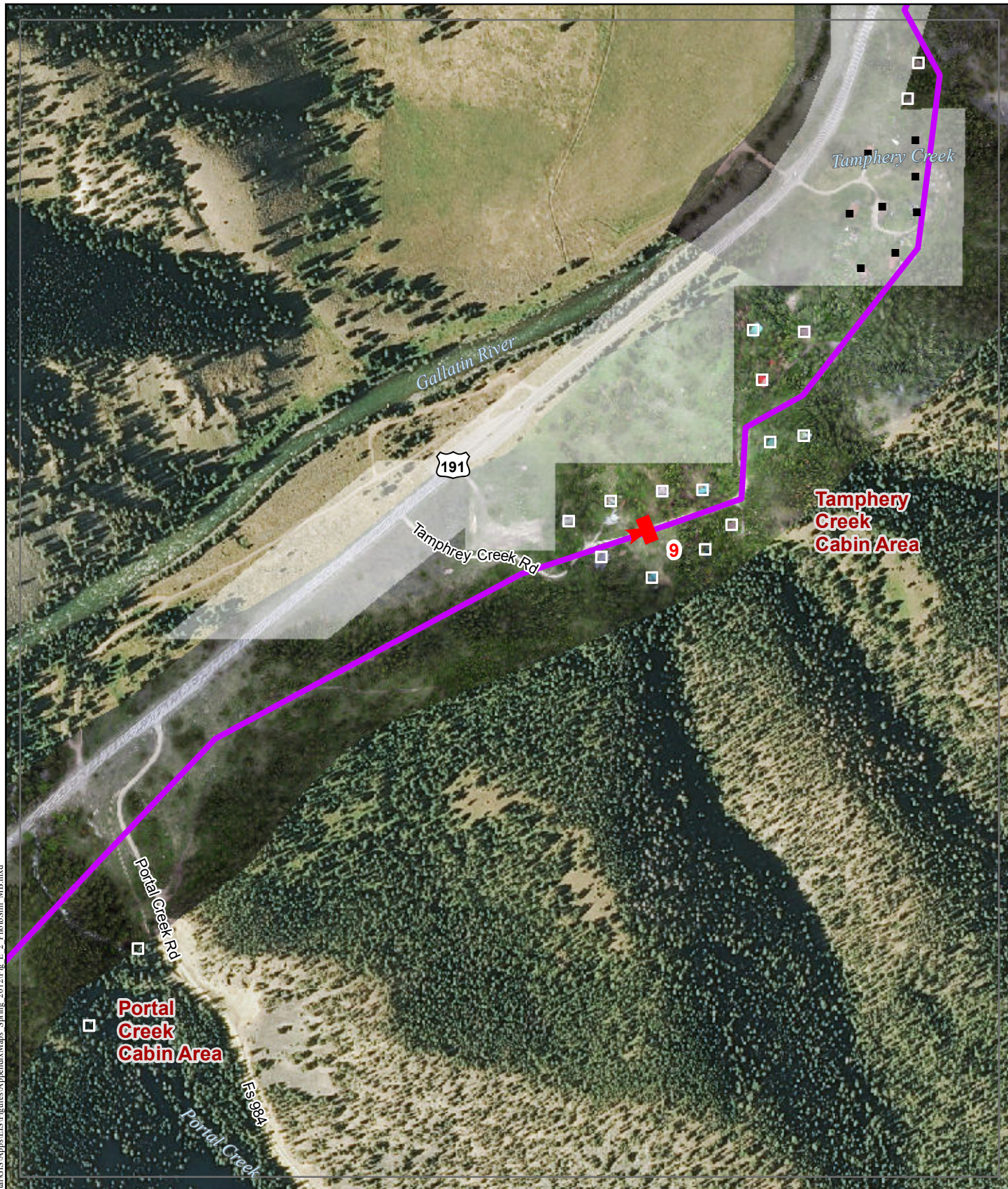
JACK RABBIT - BIG SKY 161kV TRANSMISSION LINE

Fig. E-2 - Photo Simulation Locations page 5

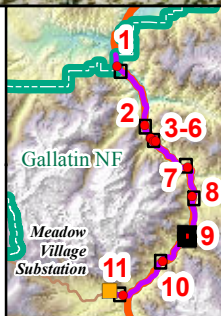
Sim 8 Moose Creek Campground







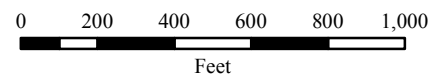
- Photo Simulation location and direction
- Recreational Residence
- Residence on Private Land
- Existing Transmission Line
- Local Routing Option
- Private Land
- Campground
- Trail
- Trailhead



JACK RABBIT - BIG SKY 161kV TRANSMISSION LINE

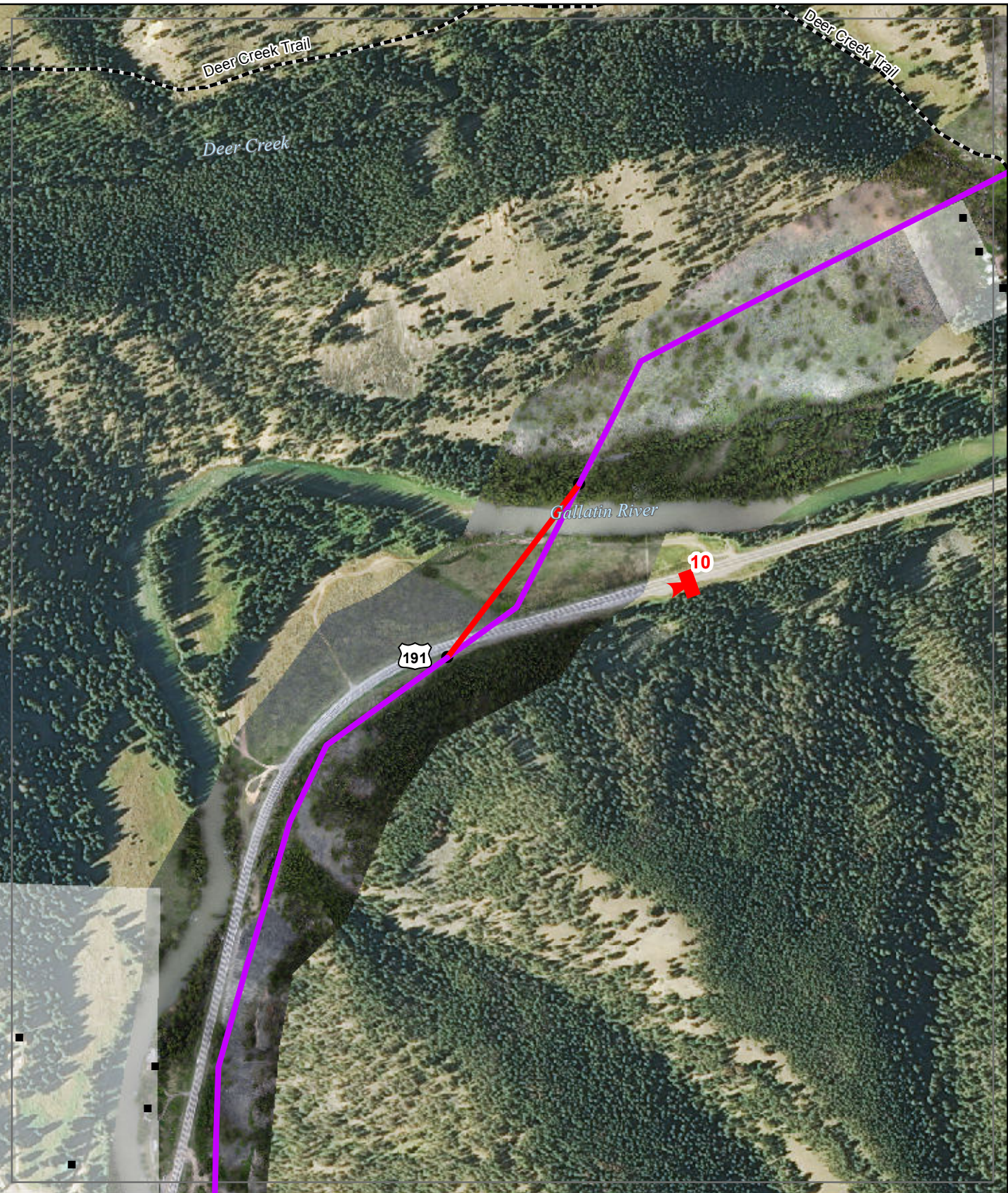
Fig. E-2 - Photo Simulation Locations page 6










Sim 9 Tamphery Creek Recreation Residence Tract

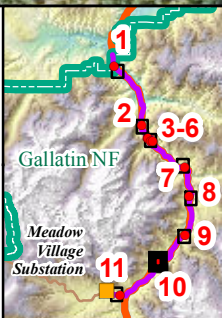




4/2/2012, W:\113792, JackRabbit - Big Sky\PER\Environmental\GIS\Apps\ESRI\Figures\Appendix\Maps\_Spring\_2012\Fig. E-2\_PhotoSim\_MB.mxd



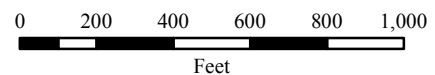
-  Photo Simulation location and direction
-  Recreational Residence
-  Residence on Private Land
-  Existing Transmission Line
-  Local Routing Option
-  Private Land
-  Campground
-  Trail
-  Trailhead



JACK RABBIT - BIG SKY 161kV TRANSMISSION LINE










Fig. E-2 - Photo Simulation Locations page 7

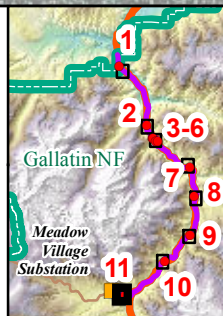
Sim 10 Meadow South of Deer Creek







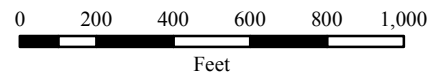
-  Photo Simulation location and direction
-  Recreational Residence
-  Residence on Private Land
-  Existing Transmission Line
-  Local Routing Option
-  Private Land
-  Campground
-  Trail
-  Trailhead



JACK RABBIT - BIG SKY 161kV TRANSMISSION LINE

Fig. E-2 - Photo Simulation Locations page 8

Sim 11 Big Sky Spur Road





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# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **1a**

**Observation Point:** Looking southwest from the side of U.S. Highway 191 just north of the Gallatin National Forest sign.

The segment of existing alignment shown is on GNF land for approximately 1/3 of a mile and then continues along the highway on private land. Private residences on the east side of the road in this area have open views of the existing alignment. The photograph captures a sequence of structures that stretch into the distance. Four are very visible while more distant structures begin to blend into the mountain backdrop in the photograph. The proposed structures shown are single wood pole and guyed single wood pole with underbuild alternating post insulators which would be placed to the west of the existing structures.



EXISTING CONDITIONS



ALTERNATIVES 2, 3 & 4 - Wood Poles

DATE: 8/10/2010  
TIME: 10:02 AM  
CAMERA HEIGHT: 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternatives. Tree clearing is not illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*





# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **1b**

**Observation Point:** Looking southwest from the side of U.S. Highway 191 just north of the Gallatin National Forest sign.

The segment of existing alignment shown is on GNF land for approximately 1/3 of a mile and then continues along the highway on private land. Private residences on the east side of the road in this area have open views of the existing alignment. The photograph captures a sequence of structures that stretch into the distance. Four are very visible while more distant structures begin to blend into the mountain backdrop in the photograph. The proposed structures are single wood pole and single corten steel pole (one pole closest to Gallatin National Forest sign) with underbuild alternating post insulators.



EXISTING CONDITIONS



ALTERNATIVES 2, 3 & 4 - Wood and Corten Steel Poles

DATE: 8/10/2010  
TIME: 10:02 AM  
CAMERA HEIGHT: 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternatives. Tree clearing is not illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*





# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **2**

**Observation Point:** Looking south from a turn out between U.S. Highway 191 and the Gallatin River north of the Cave Creek Recreation Residence Tract.

A sequence of four structures is visible in an area where the line crosses a small scree slope parallel to the road. More distant structures blend into the trees and are not visible in the photograph. The proposed structures are single wood pole with underbuild alternating post insulators which would be placed to the west (uphill) of the existing structures.



DATE: 8/10/2010  
TIME: 10:48 AM  
CAMERA HEIGHT: 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternatives. Tree clearing is not illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*





# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **3a**

**Observation Point:** Looking south from the Gallatin River National Recreation Trail south of the 35mph bridge toward the Lava Lake Trailhead access road.

The proposed structures shown for Alternative 4 are single wood pole with underbuild alternating post insulators and single wood pole with underbuild vertical post insulators. The segment shown is not included in Alternatives 2 or 3.



DATE: 8/10/2010  
TIME: 12:28 PM  
CAMERA HEIGHT: 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternative. Some tree clearing is illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*





# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **3b**

**Observation Point:** Looking south from the Gallatin River National Recreation Trail south of the 35mph bridge toward the Lava Lake Trailhead access road.

The proposed structures shown for Alternative 4 are single wood pole with underbuild alternating post insulators and single corten steel pole with underbuild vertical post insulators. The segment shown is not included in Alternatives 2 or 3.



EXISTING CONDITIONS



ALTERNATIVE 4 (Cascade West LRO) - Corten Steel Poles

DATE: 8/10/2010  
TIME: 12:28 PM  
CAMERA HEIGHT: 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternative. Some tree clearing is illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*





# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **4**

**Observation Point:** Looking south/southeast from the Gallatin River National Recreation Trail Parking area south of the 35 mph bridge.

The proposed structures shown for the Proposed Action are single wood pole with underbuild alternating post insulators and guyed single wood pole, which would be placed to the south of the existing structures. Alternatives 3 and 4 would eliminate the crossing shown in this simulation.



DATE: 8/10/2010  
TIME: 12:23 PM  
CAMERA HEIGHT: 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternative. Tree clearing is not illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*





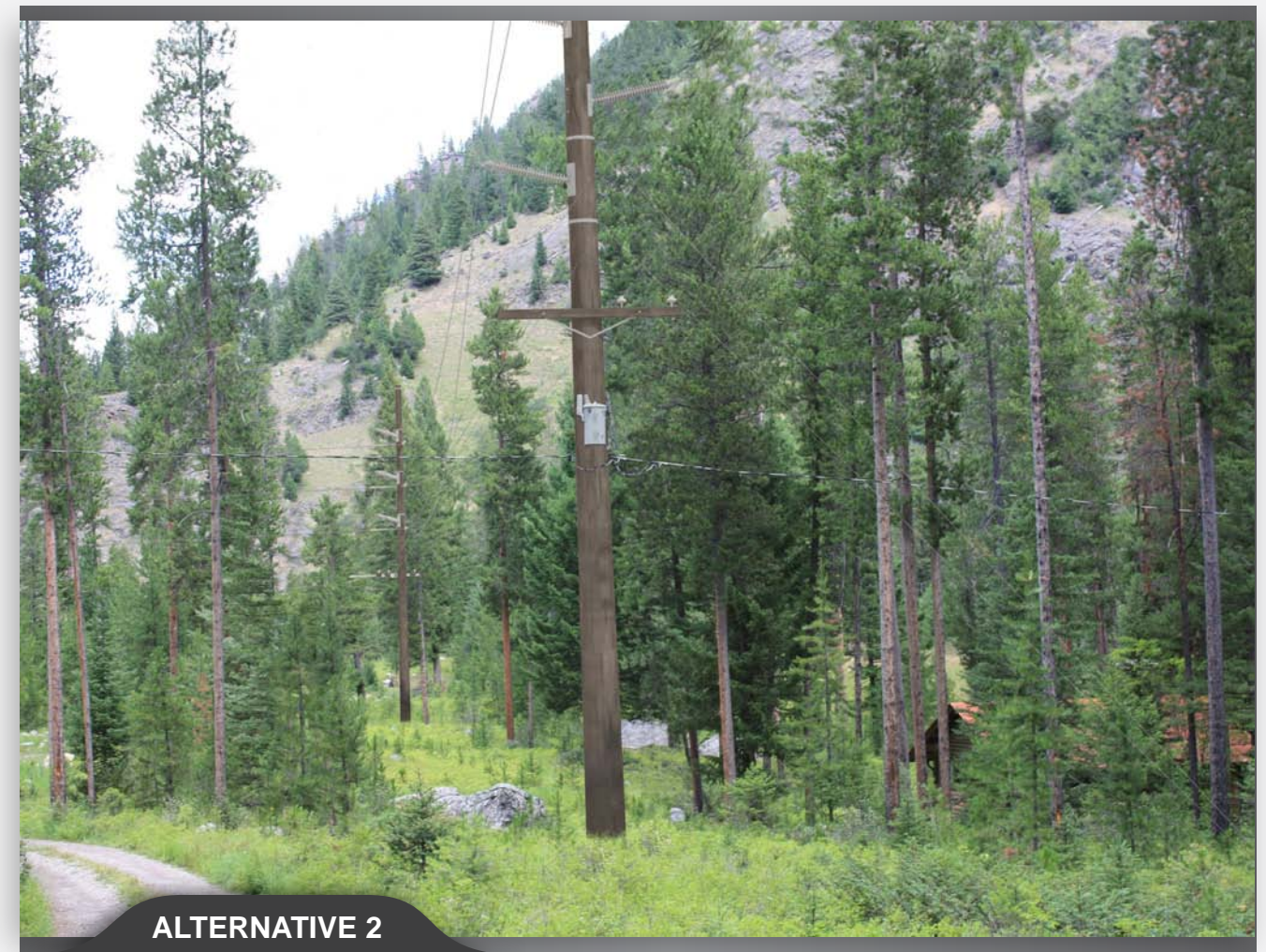
# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **5**

**Observation Point:** Looking northwest from the Cascade Creek Recreation Residence Tract access road.

The proposed structures shown for the Proposed Action are single wood pole with underbuild alternating post insulators and guyed single wood pole.

Alternatives 3 and 4 would eliminate the segment of transmission line shown in this simulation. Alternative 3 (Cascade East LRO) would move the line to the east side of the Gallatin River and U.S. Highway 191 while Alternative 4 (Cascade West LRO) would move the line west of the Cascade Creek Recreation Residence Tract.



**DATE:** 8/10/2010  
**TIME:** 11:56 AM  
**CAMERA HEIGHT:** 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternative. Some tree clearing is illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*





# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **6a**

**Observation Point:** Looking northwest from U.S. Highway 191 east of the Cascade Creek Recreation Area.

The proposed structures shown are single wooden pole with underbuild alternating post insulators and guyed single pole structures. The segment shown is not included in Alternatives 2 or 4.



EXISTING CONDITIONS



ALTERNATIVE 3 (Cascade East LRO) - Wood Poles

DATE: 10/28/2011  
TIME: 2:05 PM  
CAMERA HEIGHT: 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternative. Some tree clearing is illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*





# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **6b**

**Observation Point:** Looking northwest from U.S. Highway 191 east of the Cascade Creek Recreation Area.

The proposed structures shown are single corten steel pole with underbuild alternating post insulators. The segment shown is not included in Alternatives 2 or 4.



EXISTING CONDITIONS



ALTERNATIVE 3 (Cascade East LRO) - Corten Steel Poles

DATE: 10/28/2011  
TIME: 2:05 PM  
CAMERA HEIGHT: 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternative. Some tree clearing is illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*





# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **7**

**Observation Point:** Looking northwest from the access road through the Greek Creek Recreation Residence Tract.

The proposed structure shown is a guyed single wood pole which would be placed to the west of the existing structure.



DATE: 8/9/2010  
TIME: 1:48 PM  
CAMERA HEIGHT: 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternatives. Some tree clearing is illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*





# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **8**

**Observation Point:** Looking south and east from the Moose Creek Campground.

The transmission line is viewed from across U.S. Highway 191. A sequence of several structures is visible from the campground that would also be visible from the highway. The proposed structures are single wood pole and single corten steel pole (one pole) with underbuild alternating post insulators which would be placed to the east (uphill) of the existing structures.



DATE: 8/9/2010  
TIME: 4:30 PM  
CAMERA HEIGHT: 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternatives. Tree clearing is not illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*





# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **9**

**Observation Point:** Looking southwest from Tamphery Creek Recreation Residence Tract access road.

This is an axial (down the center of a linear feature) view down the transmission line ROW with several structures visible. The proposed poles are single wood poles with underbuild alternating post insulators.



DATE: 8/9/2010  
TIME: 2:47 PM  
CAMERA HEIGHT: 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternatives. Tree clearing is not illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*





# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **10**

**Observation Point:** Looking south/southwest from U.S. Highway 191 south of Deer Creek toward a meadow that is crossed by the existing 69kV transmission line.

The Deer Creek Engineering Refinement is shown. This minor refinement was proposed to reduce potential visual impacts to views from U.S. Highway 191. The refinement would eliminate one guyed support structure on the east side of the highway. The proposed structures visible are single wood poles with underbuild alternating post insulators.



DATE: 8/10/2010  
TIME: 1:09 PM  
CAMERA HEIGHT: 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternatives. Tree clearing is not illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*





# JACKRABBIT TO BIG SKY

PHOTO  
SIMULATION **11**

**Observation Point:** Looking west from the side of Big Sky Spur Road.

The existing transmission line alignment parallels the road in this area, with an approximately 0.75 to 1 mile section visible while driving along the Big Sky Spur Road. The photograph captures a sequence of three structures along the road. The proposed structures shown are single wood pole with underbuild alternating post insulators, which would be placed to the north of the existing structures.



EXISTING CONDITIONS



ALTERNATIVES 2, 3 & 4

DATE: 8/10/2010  
TIME: 1:23 PM  
CAMERA HEIGHT: 5' 6"

*Photosimulations are for demonstration purposes only. New poles, conductors, and the transmission line alignment are depicted for the noted alternatives. Tree clearing is not illustrated. Pending review and engineering, the type, size, design of the poles, the offset from existing alignment, the location of the poles and tree clearing along the R.O.W. may vary from the photo simulation.*

